



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D5623-044**  
**Job Sheet 183502**

Accounting Job RD47-1048-01



RD18-1056-01

DAS  
21  
9-89

Part No: D5623-044

Job Qty: 1 ea

Part Name: Aft Skiddtube Protector, RH



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/19/18

Job Tracking No:

Due Date: 9/24/18

Created By: Marie Lajeunesse

Type: R+D

Description:

Note: DWG D5623 REV:A IPP REV A 18.05.22 NEW ISSUE RQ VERIFIED BY DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off        |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-----------------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |                 |
| 90    | Start up Operation | 1 Ea  | 9/24/18    | 9/24/18  | 0.00      | 0.00    | Start Up Waterjet     |           | SC 8/09/19      |
| 110   | Waterjet           | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.06    | Waterjet1             |           | SC 8/09/19      |
| 120   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC2 Waterjet-2        |           | SC 8/09/19      |
| 130   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC8-2                 |           | SEP 21 2018 68  |
| 140   | Brake NC           | 1 pcs | 9/24/18    | 9/24/18  | 0.12      | 0.01    | Brake NC 1            |           | SEP 21 2018 68  |
| 150   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC5                   |           | SEP 25 2018 68  |
| 160   | Large Fab          | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.25    | Large Fab 1           |           | DYC 18/09/18-89 |
| 170   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC9                   |           | 12              |
| 180   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC5                   |           | 12              |
| 190   | HandFinish         | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.03    | HandFinish4           |           | SA 18-09-DAS    |
| 200   | QC                 | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC3                   |           | 68              |
| 210   | Packaging          | 1 pcs | 9/24/18    | 9/24/18  | 0.00      | 0.00    | Packaging3-1          |           | OCT 01 2018 89  |
| 220   | QC21-SA            | 1 Ea  | 9/24/18    | 9/24/18  | 0.00      | 0.00    | QC21                  |           | OCT 01 2018 89  |

Part Op 110 - 1-Cut D5623-3F as per Dwg D5623 Dwg Rev: A Prog Rev: A 2-Deburr if necessary  
Descriptions: 160 - -Weld as per dwg. -Index clamp as per dwg note 10  
190 - APPLY TEXTURED COATING ON CONCAVE SURFACE \*\*\*\*AS PER NOTE 3\*\*\*\* ON DWG AND QSI  
BATCH: 138944  
210 - LOCATION : FP001

### Job BOM

| Part / Item | Component Name     | Quantity             | Operation             | Container |
|-------------|--------------------|----------------------|-----------------------|-----------|
| M304S20GA   | 304/316 .040 Sheet | 1.1910 sf (1.191 ea) | 90-Start up Operation | 5090402   |
| MS21920-25  | Clamp              | 1 Ea (1 ea)          | 160-Large Fab         | 5082848   |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | M304S20GA      | 1        | 291       | 0         |
| 160-Large Fab         | MS21920-25     | 1        | 232       | 0         |

### Part Specifications

Specifications could not be found.



DQA: \_\_\_\_\_ Date: \_\_\_\_\_



# WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                               | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube <input type="checkbox"/></td> <td style="border: none;">Cross tube <input type="checkbox"/></td> <td style="border: none;">Water Jet <input type="checkbox"/></td> <td style="border: none;">Engineering <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Machining <input type="checkbox"/></td> <td style="border: none;">Small Fab <input type="checkbox"/></td> <td style="border: none;">Prod. Eng. Coord. <input type="checkbox"/></td> <td style="border: none;">Quality <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Thermoforming <input type="checkbox"/></td> <td style="border: none;">Finishing <input type="checkbox"/></td> <td style="border: none;">Rec/Store/Packaging <input type="checkbox"/></td> <td style="border: none;">Other <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Large Fab <input type="checkbox"/></td> <td style="border: none;">Composite <input type="checkbox"/></td> <td style="border: none;">Supplier <input type="checkbox"/></td> <td></td> </tr> </table> |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   | Skid-tube <input type="checkbox"/> | Cross tube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cross tube <input type="checkbox"/>                                                                                                                                                                                                                                                                              | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Engineering <input type="checkbox"/>                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Small Fab <input type="checkbox"/>                                                                                                                                                                                                                                                                               | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Quality <input type="checkbox"/>                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Finishing <input type="checkbox"/>                                                                                                                                                                                                                                                                               | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Other <input type="checkbox"/>                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Composite <input type="checkbox"/>                                                                                                                                                                                                                                                                               | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Step #: _____                                                                                                                                                                                                                                                                                                    | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                    | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    | Completed By                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: small;">DART Aerospace Ltd.<br/>1270 Aberdeen Street<br/>Newbury, ON K64 1K7<br/>CANADA<br/>TEL: 513 632-5200<br/>Email: sales@dartaero.com<br/>www.dartaerospace.com</p> <p style="font-size: small;">Date: 09/20/18</p> </div> <div style="width: 45%; text-align: right;"> <p>Container No: S112281</p> <p>Part: D5623-044</p> <p>Job No: 183502</p> <p>Serial No/Batch: S112281</p> <p>Revision: A</p> <p>Inspector: _____</p> <p>Exp Date: _____</p> <p>Instructions: Various STC's</p> </div> </div> |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    | Lead hand / Supervisor Approval Verification                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| <b>DEFECT CATEGORY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                            | Use for testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Cuts <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

|                                               |             |                               |
|-----------------------------------------------|-------------|-------------------------------|
| <b>DART AEROSPACE LTD</b>                     |             | <b>Work Order:</b> 183502     |
| <b>Description:</b> A7 SKIDTUBE PROTECTOR, RH |             | <b>Part Number:</b> D5623-014 |
| <b>Inspection Dwg:</b> D5623                  | <b>Rev:</b> | <b>Page 1 of 1</b>            |

### INSPECTION SHEET

| Drawing Dimension | Tolerance    | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|--------------|------------------|--------|--------|----------------------|----------|
| 57,43             | +/- 0,030    | 57,43            | 1      |        | USE 01               |          |
| 55,362            | +/- 0,010    | 55,360           | 1      |        | TYPE                 |          |
| 24,924            | +/- 0,010    | 24,925           | 1      |        |                      |          |
| 21,424            | +/- 0,010    | 21,425           | 1      |        |                      |          |
| 16,299            | +/- 0,010    | 16,300           | 1      |        |                      |          |
| 12,79             | +/- 0,030    | 12,79            | 1      |        |                      |          |
| 16,75             | +/- 0,030    | 16,75            | 1      |        |                      |          |
| 7,487             | +/- 0,010    | 7,490            | 1      |        |                      |          |
| 4,250             | +/- 0,010    | 4,250            | 1      |        |                      |          |
| 0,33              | +/- 0,030    | 0,332            | 1      |        |                      |          |
| 2,200             | +/- 0,010    | 2,202            | 1      |        |                      |          |
| 3,00              | +/- 0,030    | 3,001            | 1      |        |                      |          |
| 2,00              | +/- 0,030    | 2,002            | 1      |        |                      |          |
| 3,25              | +/- 0,030    | 3,255            | 1      |        |                      |          |
| 2,400             | +/- 0,010    | 2,401            | 1      |        |                      |          |
| 0,188             | +0,005-0,001 | 0,191            | 1      |        |                      |          |
| 0,344             | +0,006-0,001 | 0,346            | 1      |        |                      |          |
| 0,50              | +/- 0,030    | 0,505            | 1      |        |                      |          |
| 0,40              | +/- 0,030    | 0,403            | 1      |        |                      |          |
| 0,38              | +/- 0,030    | 0,379            | 1      |        |                      |          |
| 0,75              | +/- 0,030    | 0,748            | 1      |        |                      |          |
| 0,77              | +/- 0,030    | 0,772            | 1      |        |                      |          |
| 1,00              | +/- 0,020    | 1,002            | 1      |        |                      |          |
| 0,050             | +/- 0,010    | 0,048            | 1      |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |
|                   |              |                  |        |        |                      |          |

DAS

|                        |                    |                         |
|------------------------|--------------------|-------------------------|
| <b>Measured by:</b> SC | <b>Checked by:</b> | <b>QC Inspector:</b> 68 |
| <b>Date:</b> 18/09/19  | <b>Date:</b>       | <b>Date:</b> 18-09-21   |

|                                                |              |
|------------------------------------------------|--------------|
| <b>Engineering Approval:</b><br>(If necessary) | <b>Date:</b> |
|------------------------------------------------|--------------|

| Rev | Date     | Change    | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A   | 14.07.31 | New Issue | KJ         |          |